

SOV/49-59-7-3/22

Diffraction of the P-Wave in the Earth's Core and Its Thickness

respectively. The results of the experiments were compared with the data of 75 earthquakes. The value of  $A_p/A_{pp} = \Delta f$  ( $A_p$  - amplitude of P-wave,  $A_{pp}$  - amplitude of the longitudinal wave reflected once only from the earth's surface) were calculated (Fig 9) and then compared with the values of  $A/A_0$  obtained from the model for  $\mu_2 = 0$  and  $\mu_2 = 10^7$ . Fig 10 shows that the results of both methods are in close agreement (1 -  $\mu_2 = 0$ , 2 - seismic data,

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Diffraction of the P-Wave in the Earth's Core and Its Thickness  
 $\beta - \mu_2 = 10^7$ ). Acknowledgments are made to Ye. F.  
Savarenskiy for valuable advice. There are 10 figures  
and 16 references, of which 10 are Soviet and 6 are English.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomo-  
nosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 19, 1958.

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3.9300

9.9865

AUTHORS:

Ry kunov, L. N., Khorosheva, V. V., and Seden, B. V.

TITLE:

A two-dimensional model of a seismic wave guide without sharply defined limits

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya,  
no. 11, 1960, 1601-3

TEXT: The great interest shown by many authors in propagation of seismic waves in the presence of a low-speed layer and in media with continuously varying velocity prompted this attempt to investigate the possibility of models of such media. Change of elastic properties of some materials with temperature was employed for this purpose. The material chosen was a paraffin-polyethylene alloy, 97% : 3% (a plate 5 mm thick). The radiated elastic pulse had the form  $\sin \frac{2\pi}{T} t$ , where

$0 < t < T$  and  $T = 20 \cdot 10^{-6}$  sec. Velocities of elastic waves were determined by hodograph plotting. The change of velocity and absorption of

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S/049/60/000/011/006/012  
D247/D305

A two-dimensional...

elastic waves were measured. The positions of the pulse emitter and the receiver were constant during the experiment, so that amplitude variations of P and S waves caused by change of absorption at different temperatures could be reliably estimated. The variations of temperature were measured by means of low-inertia resistance thermometers. The records showed that with a temperature increase from 10° to 30°C the velocities of P and S waves decreased more than twice. Poisson's coefficient was practically constant--0.31. The change in behavior of the plate became very marked at temperatures above 20°C. Between 10 - 20°C, the amplitudes of P and S waves remained practically constant and, consequently, their absorption also. In the same temperature interval the velocities of P and S waves decreased by 18 - 20%. The model itself is shown, and the results of the investigation are illustrated graphically. The authors note that paraffin-polyethylene has one considerable disadvantage--a high wave absorption  $\alpha_P = 0.025 \text{ cm}^{-1}$  at 45 kc/s, but it can be greatly reduced by using low-frequency transmitters. The authors conclude that the material proved to be satisfactory at temperatures below 20°C.

A two-dimensional...

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There is an acknowledgment to S. D. Selyuminov for his aid in the experiments. There are 6 figures and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: N. Ricker, The form and nature of seismic waves and the structure of seismograms, Geophys., 5, no. 4, 1940; H. E. Szendrei, An experimental investigation of the propagation of a sonic pulse along the surface of a semi-infinite medium, Geophys. pura et appl., 43, 1959.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University im. M. V. Lomonosov)

SUBMITTED: May 19, 1960

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Papers submitted for the 10th Pacific Science Congress, Honolulu, Hawaii 21 Aug-  
6 Sep 1961.

- MAGIBIA, M. S., Institute of Geology - "Meteoric depressions and troughs  
of the Atlantic type and their position in the systematics of tectonic  
processes" (Section VII.C)
- MARFO, B. A., Moscow State University, Physical Faculty - "The Geomagnetic  
spectroscopic measurements of artificial radioactivity in upper layers  
of the ocean" (Section VII.3.6)
- NEFEDOV, V. D., Chair of Geography, The Agricultural Academy USSR; K. A.  
NEFEDOV - "Forest fire research and methods of fire control" (Section V.B)
- NIKONOVA, T. A., Institute of Oceanology - "Biogeographical and  
morphological analysis of reproduction and development of marine  
fishes in the seas of the northwest Pacific" (Section VII.C)
- OGRITOV, R. V., Institute of Oceanology - "Interaction of the horizontal  
turbulent exchange in the Pacific Ocean" (Section VII.3)
- PALICH, M. V., Institute of Oceanology - "Morphology in the geographical  
distribution of flying fishes in the Pacific Ocean" (Section VII.C)
- PERELOMENOV, M. A., Institute of Geology - "Stratigraphic horizons in the  
continuous deposits of Kamchatka" (Section VII.C)
- PERELIN, V. P., Institute of Oceanology - "The processes of recent sedi-  
mentation in the western part of the equatorial zone in the Pacific" (Section VII.C)
- PODRIVAYA, L. A., Institute of Earth Physics [ment. O. Yu. Schmidt] -  
"Geological conditions in the northeastern outlying areas  
of the eastern geographic basin" (Section VII.C.2)
- POLOVIN, I. A., Institute of Oceanology - "Benthosfauna in the  
northern part of the Pacific" (Section VII.C)
- POLOVIN, I. A., Institute of Zoology - "The problem of the Bering land  
bridge from the ecological point of view" (Section VII.3.5)
- PRUDNIKOV, N. A., Institute of Geology - "Some specific features  
of the structure of the north part of the Pacific below" (Section VII.C)
- RUMYANTSEV, N. A., Moscow State University, Physical Faculty - "A new deep sea  
current" (Section VII.B.3)
- RUDOVICH, F. A., Institute of Geology - "On the variability and  
inheritance of structural elements in the fauna of the Pacific Ocean  
depression" (Section VII.C)
- RASH, F. J., GOR'KOV, A. A., and GORENINA, N. M., Institute of  
Oceanology - "Geodesophysical record for marine parts of the Pacific  
development of methods in the northern part of the Pacific" (Section VII.C.3)
- RUDOVICH, F. A., Institute of Oceanology - "Organic substance in  
bottom sediments in the western part of the Pacific" (Section VII.C.1)
- RUDOVICH, F. A., Institute of Earth Physics [ment. O. Yu. Schmidt] -  
"Relations between the fauna inhabiting in the eastern margin of  
the Arctic and the fauna inhabiting in the oceanic crust" (Section VII.C.2)
- RUMYANTSEV, N. A., Moscow State University, Geo-Physical Faculty - "The  
structure of natural convection in east Asia" (Section VII.C)
- RUMYANTSEV, N. A., Moscow State University, Physical Faculty, Chair of Heat  
Current - "The correlative method for studying microseisms" (Section VII.C.2)
- SAPKOVA, N. M., Institute of Oceanology - "The distribution of bottom  
life formatters in the northern part of the Pacific and its use for  
the reshaping of the paleocean" (Section VII.1)
- SAPKOVA, N. M., Institute of Oceanology - "Problems concerned with the  
theory of formation of the temperature regime in seas and oceans" (Section VII.1)
- SAPKOVA, N. M., Institute of Oceanology - "The geographical formation of the  
Pacific Ocean in respect to phytoplankton" (Section VII.1)
- SENKOVA, N. M., Institute of Geology - "Palaeogenes formatters of Kazakhstan"  
(Section VII.3)
- SINYAVSKY, A. Y., Institute of Oceanology - "Volcania and Physics in the  
relation of the Pacific" (Section VII.C)
- SOKOLOV, V. S., Institute of Oceanology - "Problems concerning the  
mechanism of ocean-subsidence (1) or-Earth" (Section VII.3.2)
- SOKOLOV, V. S., Institute of Oceanology - "The main problems  
of human illness geography and their significance for prophylactic  
medicine" (Section VII.3.4)
- SOKOLOV, V. S., Institute of Petroleum Studies - "Geology of  
Antarctica" (Section VII.B.1)
- SOKOLOV, N. M., Institute of Oceanology - "Methods for measuring deep  
currents in the ocean and some results of their application in the  
Pacific Ocean" (Section VII.3.5)

21206

3,9300 (1019,1109)  
9,9865

S/188/61/000/001/001/009  
B108/B209

AUTHORS: Vasil'yeva, T. L., Proskuryakova, T. A., Rykunov, L. N.,  
Savarenkiy, Ye. F.

TITLE: The influence of the relief of the Earth's surface upon the  
propagation of microseisms

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya 3, fizika,  
astronomiya, no. 1, 1961, 3-12

TEXT: An attempt has been made to estimate the influence of the relief of  
the Earth's surface upon the propagation of microseisms. This is  
necessary for the exploration of the upper layers of the Earth's crust,  
for the choice of a net of research stations, etc. In the present study,  
an ultrasonic model was used. Between 1956 and 1959, about forty micro-  
seismic "storms" were observed in the USSR and in Europe. The storm  
observed on February 1-3, 1958, is subjected to a close examination. The  
epicenter of this storm was at  $15^{\circ}00'$  east longitude and  $69^{\circ}20'$  north  
latitude, i.e., along the north-western shore of Scandinavia. For com-  
parison of the seismic intensity, the quantity  $(A/T)^2$  was determined at  
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various stations ( $A$  - amplitude,  $T$  - period). The following relation holds for the energy of the seismic focus:  $\ln f + \ln E - k\Delta = \ln\{(A/T)^2\Delta\}$  (1), where  $\Delta$  denotes the distance of the station from the epicenter,  $k$  the absorption coefficient,  $f$  a factor accounting for the type of focus, for the peculiarities of the propagation path, and for the particulars of the recording station.  $k$  is practically constant, and so is  $f$  when epicenter and station are axially symmetric. For stations equidistant from the epicenter, the ratio  $A/T$  may be determined from an  $\ln\{(A/T)^2\Delta\}$  - versus  $-\Delta$  diagram. In the present study, the distance between epicenter and Ashkhabad (660 km) was taken as a standard,  $\Delta_0$ . When constructing models for studying the influence of the Earth's relief upon seismic intensity, the authors assumed that: a) seismic waves are superficial Rayleigh surface waves, b) the medium is continuous and homogeneous along the way of propagation. The models were made of 3 mm thick plexiglass with the relief engraved on the sides. A stack of 10 ammonium dihydrophosphate layers (2.2.2 cm) was used as a source of elastic waves. The period of emission was  $T = 17.4 \cdot 10^{-6}$  sec.  $\text{BaTiO}_3$  plates (2 mm thick) glued into the

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model served as receivers. The scale of the model was 1 : 1,000,000. Procedure was as follows: 1) measurement of the amplitude of Rayleigh waves for a smooth surface, 2) cutting of the relief corresponding to the natural one, and measurement of the amplitude, 3) calculation of the ratio  $A/A_{\text{control}}$  of the amplitudes as measured by the main and control receivers for a smooth ( $\tilde{A}_s$ ) and a rough ( $\tilde{A}_r$ ) surface, 4) calculation of  $\tilde{A}_r/\tilde{A}_s$  which is a measure for the influence of the relief. This quantity was then divided by the same quantity for the distance between epicenter and Ashkhabad. For a number of stations ("Warsaw", "Moscow", "Makhachkala"), agreement between observation in nature and model experiment was good; for other stations, however, a discrepancy was found ("Goris", "Triest", "Semipalatinsk"). This discrepancy was subjected to further examination for the line epicenter - Moscow - Goris because, according to the results, the source of trouble lies between Moscow and Goris: namely, the Caucasus Mountains, i.e., the Tauro-Caucasian geosyncline with mesocenozoic sediments of a depth of 8-10 km. In the model, this was realized by cutting out parts from the sides of a plexiglass plate (native rock) and filling this profile with a paraffin-polyethylene mixture (representing the

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sediments). With such a model, agreement was satisfactory for the line Moscow - Goris, too, particularly when discontinuities of the medium on the natural line are taken into consideration. A similar influence is exerted by the Alps on the line epicenter - Triest, and by the Ural Mountains on the line epicenter - Semipalatinsk. These studies showed that not only the surface of the Earth affects the intensity of microseismic waves, but also any change in the medium through which these waves are passing. There are 6 figures, 3 tables, and 9 references: 5 Soviet-bloc and 4 non-Soviet-bloc. The reference to the English-language publication reads as follows: Iyer H. M., Geoph. Journ., 1, no. 1, 1958.

ASSOCIATION: Kafedra fiziki zemnoy kory (Department of the Physics of the Earth's Crust)

SUBMITTED: March 5, 1960

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3. 9300

S/049/61/000/002/004/012  
D242/D301

AUTHORS: Ry kunov, L. N., and Feofilaktov, V. D.

TITLE: The piezoelectric source of single-shot ultrasonic pulses for seismic models

PERIODICAL: Akademiya nauk SSSR. Seriya geofizicheskaya.  
Izvestiya, no. 2, 1961, 205-214

TEXT: What is described is made from a number of plates of ammonium di-hydrogen phosphate (ADP) of 45° Z-cut. It is shown how to mount this so that only one mode of the (P-type) oscillation (~ 50 kc/s) is radiated. It is further proved theoretically and confirmed experimentally that excitation by a single square pulse of duration - T/2 (where T = 1/50 kc/s) gives the maximum amplitude of oscillation. ADP is preferred to Seignetic rates because it is chemically more stable and alters its properties only slightly with temperature. It is, however, less sensitive i.e. gives less efficiency. The pile of 10 plates is made up into the form of a 2 cm cube. Reference is made to the work of H. Ekstein,

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(Ref. 2: Free vibrations of anisotropic bodies. Phys. Rev., 66, 1944) for some of the theory. The determinant of the natural modes is

$$\begin{vmatrix} \rho\omega^2 - k^2(\gamma_{11} - \gamma_{12}) & \frac{2}{\pi}\rho\omega^2 - \frac{2}{\pi}k^2(\gamma_{11} - \gamma_{12}) & -\frac{2}{\pi}\rho\omega^2 + \\ \frac{2}{\pi}\rho\omega^2 - \frac{2}{\pi}k^2(\gamma_{11} - \gamma_{12}) & \rho\omega^2 - k^2\gamma_{11} & -k^2\frac{8}{\pi^2}\gamma_{12} \\ -\frac{2}{\pi}\rho\omega^2 + \frac{2}{\pi}k^2(\gamma_{11} - \gamma_{12}) & -k^2\frac{8}{\pi^2}\gamma_{12} & \rho\omega^2 - k^2\gamma_{11} \end{vmatrix} = 0,$$

where  $k = \pi/a$ ,  $a$  - side of cube,  $\rho$  - density of ADP and  $\gamma_{ik}$  = modulus of elasticity (tensor). (Axes  $x_1$ ,  $x_2$  are parallel to the side of a plate and  $x_3$  is coincident with the crystallographic Z-axis).

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The three roots are given by

$$\omega_1^2 = \frac{k^2}{\rho} (\gamma_{11} - \gamma_{12}) \quad (\text{первая мода}),$$

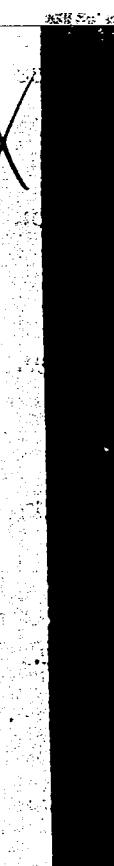
$$\omega_2^2 = \frac{k^2}{\rho} \gamma_{11} \quad (\text{вторая мода}),$$

$$\omega_3^2 = \frac{k^2}{\rho} \left( \gamma_{11} + \frac{8}{\pi^2} \gamma_{22} \right) \quad (\text{третья мода}).$$

$a = 2.1 \text{ cm}$ ,  $\rho = 1.8 \text{ g.cm}^{-3}$ ,  $\gamma_{11} = 0.262 \cdot 10^{12} \text{ dyn.cm}^2$ ,  $\gamma_{12} = 0.141 \cdot 10^{12} \text{ dyn.cm}^2$ , frequencies are obtained as follows:  $v_1 = 62 \text{ kc/s}$ ,  $v_2 = 90 \text{ kc/s}$  and  $v_3 = 109 \text{ kc/s}$ . The three modes of deformation are illustrated in Fig. 1. Experiment gives  $v_1 = 65 \text{ kc/s}$ ,  $v_2 = 88 \text{ kc/s}$ , in good agreement. Experiments along the lines of V. M. Prosvirnin and L. N. Rykunov (Ref. 3: O kharaktere svobodnykh kolebaniy p'ezodatchikov, ispol'zuyemykh pri modelirovaniyu seismicheskikh yavleniy. Izv. AN SSSR, ser. geofiz., No. 5, 1959).

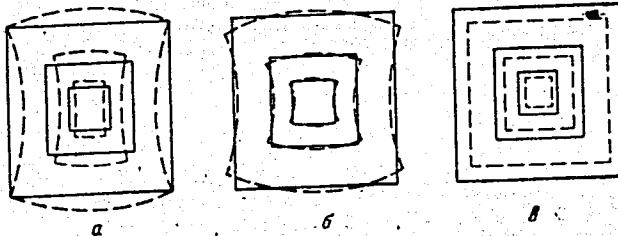
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## The piezoelectric source...

Fig. 1. First (a), second (b) and third (c) modes of oscillation of a  $45^\circ$  Z-cut ADP plate. — at rest, - - - plate in oscillation



Фиг. 1. Первая (a), вторая (b) и третья (c) моды колебаний пластины  
 $45^\circ$  Z-резца ADP

— пластинка в покое; - - - колеблющаяся пластина

show that the pile of plates can be excited in such a way that the second and third modes are absent and its oscillations consist of a pure first mode. The way to do this is shown to be firstly to use a square electric pulse shorter than the period of the third mode so that it is not excited. Secondly, to prevent oscillations of one edge by the method of fixing so that, since this is a nodal

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The piezoelectric source...

line for the first mode and an antinodal line for the second mode, only the first mode is excited. When the device is loaded by e.g. a seismic model, the frequency is brought down to about 50 kc/s. "Monochromatizing" end plates still further alternate any residual second mode. An analysis is given of the behavior of such an oscillator as a function of the duration of the exciting pulse which could be found in many text-books, and this leads to the conclusion stated. The construction is illustrated in detail in Fig. 6. There are 9 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: H. Ekstein, Free vibrations of anisotropic bodies. Phys. Rev., 66; 1944.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University im. M. V. Lomonosov)

SUBMITTED: July 15, 1960

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6.8000 (1063,1159)

29577  
S/049/61/000/005/010/013  
D201/D306

AUTHORS: Rykunov, L. N., and Selyuminov, S.D.

TITLE: Pulse generator for excitation of piezoelectric radiators

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 5, 1961, 730-731

TEXT: The quality of pulses produced by a piezoelectric radiator is determined by the level of residual transient oscillations. This level is determined again by two factors: the pressure of harmonics and upsetting of the conditions of damping of self-oscillation after the excitation pulse has been removed. In the piezoelectric pulse generator, as described by L. N. Rykunov and V. D. Feofilaktov (Ref. 1: Izv. AN SSSR, ser. geofiz., no. 2, 1961), the harmonics are adequately suppressed, but the damping of transients depends very much on the losses in the radiator and since these losses vary in practice to a considerable extent, need arose for the design of a generator producing trapezoidal pulses, for which ✓

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it was found that the amplitude of transients was a minimum. The description of such a pulse generator is given in the present article. The generator consists of the following stages: 1) A blocking oscillator with a cathode follower output, double triode 6H9C (6N9S) permalloy case transformer, 30 turns in primary and secondary. Pulse length  $3 \times 10^{-6}$  sec, amplitude 0 - 160 V, minimum rep. frequency 100 kc/s; 2) A cathode-coupled one-shot multivibrator, double triode 6H8C (6N8S), duration of output pulse  $3 \times 10^{-6}$  sec; 3) Amplifier-limiter, pentode 6~~H~~4 (6Zh4); 4) Phase inverter, 1/2 6N8S; 5) Cathode follower, 1/2 6N8S with differentiating network in the cathode cct ( $0.01 \mu F$  and 100 and 200 k ohm resistors). The 100 k ohm variable resistance permits one to vary the trailing edge of amplitude of the O/P pulse; 6) Output stage, pentode PY-50 (GU-50), output pulse amplitude 850 V, acting also as a limiter, forming thus a trapezoidal pulse. Experiments in the use of the above generator for exciting a cubic block of dihydrophosphate of ammonium have shown that the amplitude of

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transients depends on the ratio of the amplitudes of leading and trailing edges of pulses. For the best ratio the amplitude of transients is less than 7%. The authors acknowledge the help of Yu. F. Vasil'yev and of S. A. Fedorov. There are 3 figures and 2 Soviet-bloc references.

ASSOCIATION: Moskobskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University im. M. V. Lomonosov)

SUBMITTED: November 24, 1960

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S/049/61/000/006/002/014  
D207/D306

AUTHORS

Ry kunov, L.N., and Mishin, S.V.

TITLE

Some characteristics of the propagation of microwaves  
over continental paths

PERIODICAL

Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya,  
no. 6, 1961, 810-817

TEXT This paper was presented at an augmented seminar of the Otdel  
seismologii i seismicheskoy sluzhby (Division of Seismology and Seismic  
Service) which dealt with surface waves and was held at Simferopol'  
between October 1-5, 1960. The authors studied the effect of ground  
relief and of structure of the upper crustal layers on the intensity of  
microseisms. The microseisms were produced by a cyclone on February  
1-3, 1958, along the north-west coast of Norway. They were recorded at ✓  
Moscow, Makhachkala, Goris (in the Caucasus region), Ashkhabad, Pulkovo,  
Simferopol', Tiksi, Tashkent, Semipalatinsk, Warsaw and Trieste stations.

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An analysis of the records showed that the microseism intensity was reduced by the normal spreading and absorption with distance, as well as by the ground relief of Scandinavian mountains and the complex crustal structure of the Caucasus, Alps and Urals ranges. The microseisms which started as horizontal Rayleigh waves were found to have transverse Love components. These Love components are shown to be the result of partial transformation of Rayleigh waves in the regions with pronounced mountainous relief and with crustal structure peculiarities. There are 6 figures, 4 tables and 16 references. 8 Soviet-bloc and 8 non-Soviet bloc. The 4 most recent references to English-language publications read as follows: J.C.L. de Bremaecker, Transmission and reflection of Raleigh waves at corners. Geophys., 23, no. 2 (1958); H.M. Iyer, A study on the direction of arrival of microseisms at Kew observatory. Geophys. J., 1, no. 1 (1958); B. Gutenberg, Microseisms. Adv. Geophys., no 5 (1958); H. Jensen, On the heatdistribution in groupmicroseisms. Denmark, Geod. Inst., Medd., no. 36, (1958).

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Some characteristics of the ...

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D207/B306

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova  
(Moscow State University im. M.V. Lomonosov)

SUBMITTED: December 22, 1960

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001446420012-7"

9,9865

3,9300

29511  
S/049/61/000/007/003/005  
D263/D306

AUTHOR:

Rykunov, L.N.

TITLE:

Correlation method for determining the velocities of microseisms

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 7, 1961, 1037-1039

TEXT: Although wave groups of microseisms are transformed when spreading, the author states that instead of individual characteristics of groups, he considered the general character of amplitude change of the "envelope" of microseisms during long (6.5 sec) periods of time. This enabled him to follow the observed characteristics over great distances of more than 1000 km. In one particular case, records of microseism from three pairs of stations were considered. The microseism resulted from a cyclone along the north Scandinavian coast. The correlation coefficient was calculated according to

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$$r = \frac{n \sum x_1 x_2 - \sum x_1 \sum x_2}{\sqrt{n \sum x_1^2 - (\sum x_1)^2} \sqrt{n \sum x_2^2 - (\sum x_2)^2}} \quad (1)$$

where  $x_1$  and  $x_2$  - amplitudes of the "envelope" of the microseism measured in  $n$  chosen points of recording. Results are shown in Fig. 1. For (a) maximum  $r$  corresponds with  $\Delta t = 9$  min. 26 sec. which for the distance between these stations 1610 km determines the velocity 2.85 km/sec. For (b)  $\Delta t = 5$  min. and the distance equals 860 km which gives 2.85 km/sec. Study of the horizontal component gives two velocities  $c_1$  and  $c_2$  which agrees with velocities of Rayleigh waves ( $c_2$ ) and the type of Love's waves usually denoted by  $\text{Lg}_1(c_1)$ . Absence of  $c_1$  could be a criterium for the

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type of core. The author states that correlation analysis is useful in the study of the kinematics of microseisms. This knowledge in turn helps one to determine the nature and character of the source of microseisms and the upper parts of the core. Calculations were made by S.D. Selyuminov. There are 2 figures, 1 table and 7 references: 5 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: J. E. Ramires. An experimental investigation of the nature and origin of the microseisms at St. Louis. Bull. Seism. Soc. Amer., 30, 1940; B. Gutenberg, H. Benioff. An investigation of microseisms. California, 1956.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University im. M.V. Lomonosov)

SUBMITTED: February 27, 1961

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"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001446420012-7

VASIL'YEVA, T.L.; PROSKURYAKOVA, T.A.; RYKUNOV, L.N.; SAVARENISKIY, Ye.F.

Effect of the earth's relief on the propagation of microseisms.  
Vest. Mosk. un. Ser. 3: Fiz., astron. 16 no.1:3-12 Ja-F '61.

(MIRA 14:4)

1. Kafedra fiziki zemnoy kory Moskovskogo universiteta.  
(Topography) (Microseisms)

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CIA-RDP86-00513R001446420012-7"

SAVARENSKIY, Ye.F.; FEDOROV, S.A.; DZHAFAROV, R.D.; RYKUNOV, L.N.;  
LURSMANASHVILI, O.V.

Methodology of the simulation of surface waves. Izv. AN SSSR  
Ser. geofiz. no.10:1472-1478 O '64.

1. Institut fiziki Zemli AN SSSR.

(MIRA 17:11)

L-24226-66 EMT(1)/EWA(h) GW.  
ACC NR# A76010296

SOURCE CODE: UR/3195/65/000/006/0031/0036

AUTHOR: Ry kunov, L. N.; Sedov, V. V.

ORG: none

TITLE: Wave structure of microseisms

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. Seismicheskiye issledovaniya, no. 6, 1965, 31-36

TOPIC TAGS: microseism, Love wave, Rayleigh wave, seismologic station, cyclone, seismic wave

ABSTRACT: The wave spectra of microseisms in the midland regions of the Soviet Union were studied on the basis of data from 9 seismic stations. The study chiefly centered on an increase in microseismic activity stemming from a cyclone on 2 February 1958. The intensity of the cyclone, and the area where the microseisms originated are plotted. Characteristics of Love wave and Rayleigh wave components ( $R_H$  and  $R_Z$ ) were also measured on a seismograph and correlated by the correlation function developed by Lukomskiy (1958). The data show that 1) microseisms are a superposition of the Rayleigh and Love surface waves which are characterized by definite polarization and definite propagation velocity; 2) the mean amplitudes of the Love waves ( $L$ ) and the horizontal components of the Rayleigh waves ( $R_H$ ) are comparable; and 3) the higher ra-

33  
B+1

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2

L 24226-66

ACC NR: AT6010296

tios of  $L/R_H$  for the Semipalatinsk and Tashkent stations may be explained by a more pronounced scattering of the Rayleigh waves in passing through the layers of the earth's crust in the Ural Mountains. Orig. art. has: 7 figures, 2 tables, 1 formula.

SUB CODE: 08/ SUBM DATE: 00/ ORIG REF: 006/ OTH REF: 008

Card 2/2 BK

L 06377-67 EWT(1) GW  
ACC NR: AR6014576

SOURCE CODE: UR/0169/65/000/011/0031/0031

20  
B

AUTHORS: Rykunov, L. N.; Sedov, V. V.

TITLE: Wave structure of seismowaves

SOURCE: Ref. zh. Geofizika, Abs. 11G245

REF SOURCE: Sb. Seysmich. issledovaniya. No. 6. M., Nauka, 1965, 31-36

TOPIC TAGS: seismic wave, seismology, microseism, cyclone

ABSTRACT: The problem involved in the wave composition of microseisms for the intracontinental districts of the SSSR is analyzed on the basis of data from 9 seismic stations. The case of a sharp intensification of seismic activity in the course of a single cyclone of 2 February 1958 was utilized. The rear part of the cyclone between its cold fronts was taken as the source of the microseisms. It is assumed that the microseisms result from the superimposition of the Rayleigh and the Love waves. Separating the Love component, the authors calculated the ratio between the major semiaxes of the ellipse for the remaining Rayleigh component. For several of the stations this ratio was found to be 0.7, which agrees with its theoretical value. Starting with the polarization characteristics of the Rayleigh waves (at the moment of the maximum  $R_z$ , the value of  $R_H = 0$ ), the authors determined the direction

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UDC: 550.342

ACC NR: AR6014576

of the translocation in the horizontal plane for the Love component. Among a multitude of the determined directions, the direction toward the source (north-westerly) appears to predominate. The values of the group velocities, obtained by calculating the correlation coefficients between the records of the microseisms passing about some districts on two seismic stations, agree well with the velocities of Rayleigh waves and Lg waves. Relations between the mean values for the Love and Rayleigh wave amplitudes, shown in this work, indicate that the fractions of the waves of both types are about equal in the composition of the microseisms. 0.

O

[Translation of abstract]

SUB CODE: 08

Card 2/2 fdh

L 07842-67 EWT(1) GD/GW

ACC NR: AT6034368

SOURCE CODE: UR/0000/66/000/000/0085/0087

AUTHOR: Rykunov, L. N.; Sedov, V. V.

ORG: none

TITLE: Analysis results of the seismic noise level in the 1-5 cps frequency range on the bottom of the Black Sea at depths to 1000 m

SOURCE: AN SSSR. Mezhdunarodnyy geofizicheskiy komitet. Stroyeniye Chernomorskoy vpadiny (Structure of the Black Sea depression); sbornik statey. Moscow, Izd-vo Nauka, 1966, 85-87

TOPIC TAGS: seismograph, seismologic instrument, seismic wave, oceanographic instrument, noise analyzer, underwater sound equipment, seismic signal

ABSTRACT: An analysis of seismic noise in the 1 to 15-cps range recorded in 1963 on the bottom of the Black Sea at depths of 300, 500, and 1000 m is presented along with a description of an ocean-bottom seismometer (see Figs. 1 and 2). The frequency-amplitude characteristic of the instrument package provides undistorted seismic-signal reception over the 0.06- to 1-sec period range. The signals are recorded on magnetic tape at slow speed and played back at high speed, thus permitting a significant increase in the data storage capacity of the unit (about 4 days). The results of the spectral analysis of noise at the stated depths are given, with wind force and sea surface conditions taken into account. The noise spectra obtained (amplitude versus

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B+1

L 07342-67  
ACC NR: AT6034368

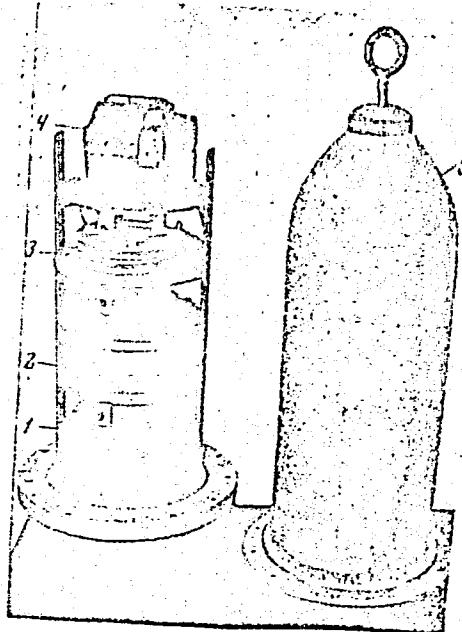


Fig. 1. Ocean-bottom seismometer

1 - NS-3 geophone; 2 - amplifier;  
3 - data storage unit; 4 - power  
source; 5 - housing.

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ACC NR: AT6034368

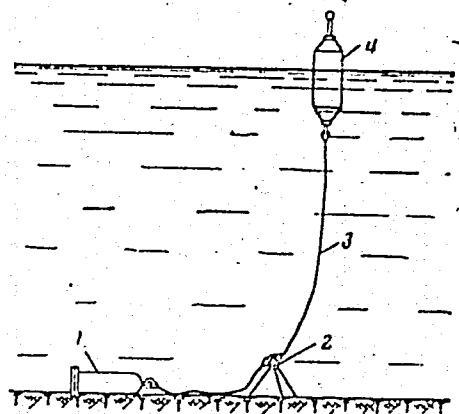


Fig. 2. Mooring arrangement

1 - Seismometer; 2 - anchor;  
3 - cable; 4 - surface buoy.

period) show a decrease in noise intensity with depth. It is also seen that each spectral function (shown graphically) consists of two parts differing sharply in intensity. For the 0.06 to 0.6-sec range, the noise level is comparatively low, while above 0.6 sec, the noise level shows a sharp increase. Tabular data presented in the article show that at depths of 300 to 500 m, the noise level in the 0.06 to 0.6-sec range compares to that at the most seismically quiet continental points. At

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ACC NR: AT6034368

1000 m, the noise amplitude is  $3 \mu$  for the same range. It is concluded that an amplification of  $5 \cdot 10^5$  to  $1 \cdot 10^6$  in the system for the period range of 0.06 to 0.6 sec can be attained. Orig. art. has: 4 figures and 1 table.

SUB CODE: 08/ SUBM DATE: 04May66/ OTH REF: 001/ ATD PRESS: 5102

Card 4/4 bc

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001446420012-7"

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001446420012-7

RYKUNOV, L.N.; SEDOV, V.V.

Wave structure of microseisms. Seism. issl. no.6:31-36 '65.  
(MIRA 18:9)

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CIA-RDP86-00513R001446420012-7"

L 38378-66 EWT(1) G#

ACC NR: AP5018883

SOURCE CODE: UR/0387/65/000/007/0030/0039

49  
46  
B

AUTHOR: Rykunov, L. N.; Sedov, V. V.

ORG: none

TITLE: Seismic noise in the 2-15 cps frequency range on the bottom of the Black Sea

SOURCE: AN SSSR. Izvestiya. Fiziki zemli, no. 7, 1965, 30-39

TOPIC TAGS: ocean acoustics, deep seismic sounding, seismology, seismography, seismologic instrument, seismometer, marine seismology, signal to noise ratio

ABSTRACT: Evaluation is made of seismic noise in the 2-15 cps frequency range, measured at depths of 300, 500, 1000, and 2000 m on the bottom of the Black Sea. Investigation of this seismic noise was undertaken by personnel of the Department of the Physics of the Earth, Moscow State University, aboard the expeditionary research ship "Moskovskiy Universitet" in 1962, 1963, and 1964. The present article describes the NS-3 vertical seismograph (natural frequency 3 cps) and methods used, as well as the results. Bottom noises were registered in two regions of the Black Sea: near the Caucasian shore (Poti, November-December 1963) and near the Crimean shore (Yalta, June 1964). Comparison of spectral curves for various depths of sea showed that the noise level drops with increase in depth, with the minimum noise level at depths exceeding 1500 m. In these cases, the intensity of noise for frequencies of 4-6 cps and higher does not exceed 1  $\mu$ u. Analysis of seismic bottom noise

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UDC: 550.342(262.5)

J. 38378-65

ACC NR: AP5018883

(2 to 15 cps) showed that on the sea bottom, starting with depths of 1000—1500 m, noise conditions were similar to those at land stations when local noise sources were either non-existent or were eliminated. This conclusion agrees well with American data despite the essential differences in the position and particular features of observation stations. Bottom noise was registered as near to the shore line as possible at minimum distances to evaluate the technical possibility and advantage of using bottom seismometers with registration ashore. The results were favorable (low stable noise level 0.2 km from shore). The performance of equipment used in this research was so good that it is recommended for more extensive use in deep seismic soundings and, for example, for prolonged sea-bottom registration of minor earthquakes in epicentral zones. Authors thank senior engineer I. I. Zhilyayev for help in the design of equipment, as well as captain N. S. Gorev and the crew of the expeditionary research vessel. Orig. art. has: 1 table and 11 figures.

SUB CODE: 08/ SUBM DATE: 28Nov64/ ORIG REF: 003/ OTH REF: 007 [JJ]

Card 2/2/11CP

ACCESSION NR: AR4036341

S/0169/64/000/003/G016/G016

SOURCE: Referativnyy zhurnal. Geofizika, Abs. 3G119

AUTHOR: Proskuryakova, T. A.; Rykunov, L. N.

TITLE: Estimate of the intensity of regular microseisms in the USSR

CITED SOURCE: Sb. Seismol. issledovaniya. No. 5. M., AN SSSR, 1963, 70-80

TOPIC TAGS: seismology, microseism, microseismic activity, microseismic storm, geophysical prediction

TRANSLATION: Using the bulletins of microseisms compiled at a number of seismic stations during the International Geophysical Year period the authors make an estimate of the intensity of regular microseisms for the territory of the USSR. The characteristics of intensity are the daily maximum amplitude A and the mean daily period T. Amplitudes were averaged for three seasons of the year, corresponding to different levels of world microseismic activity. There is a discussion of the most active sources of microseisms: Pacific Ocean, Atlantic Ocean, Black Sea, Caspian Sea, Mediterranean Sea, Lake Baykal and Lake Issyk-Kul.

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ACCESSION NR: AR4036341

For each station situated near a particular source the authors have determined the values of the functions  $A = F(T)$ , determining the mean seasonal level of microseisms for the particular period. The position of lines of equal mean intensity of microseisms, together with the mean seasonal amplitudes and frequency characteristics and graphs of the frequency of periods of microseisms form the basis for a statistical estimate of the microseismic activity of the source. On the basis of the well-known law of decrease of amplitude of microseisms with distance  $A = A_0 e^{-\alpha(T) \Delta} \Delta^{-\frac{1}{2}}$ , where  $\Delta$  is distance from the source and  $\alpha(T)$  is the absorption coefficient, the authors have studied the conditions for propagation and attenuation of microseisms; the example of one microseismic storm of 1-10 February 1958 is cited. The authors have established a dependence of the absorption coefficient  $\alpha(T)$  on period for this storm. Overlays were constructed for determination of the mean intensity of microseisms of a particular period for each season and each individual source. By use of these overlays it is possible to determine the "contribution" of a particular source to the interference curve for any region. The maximum estimate of intensity of interference

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ACCESSION NR: AR4036341

of a particular period is obtained by summing these "contributions" from all the detected sources. At the same time it also is necessary to take local sources of interference into account. A necessary parameter for the developed method for prediction of the field of microseismic activity is an allowance for the relationship between the Rayleigh and Love components on the microseismic records.  
O. Korchagina.

DATE ACQ: 17Apr64

SUB CODE: AS

ENCL: 00

Card 3/3

S/049/63/000/003/002/005  
D218/D307

AUTHORS: Belotelov, V. L., and Rykunov, L. N.

TITLE: A digital converter for seismograms

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya  
geofizicheskaya, no. 3, 1963, 473-475

TEXT: A semi-automatic device is described for the conversion of recorded seismograms into digital form. The seismogram is placed on a motor driven drum and is traced out by means of a special lever whose position is automatically converted to digital form at equal time intervals. The device is suitable for other types of graphical material. There are 3 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V.  
Lomonosova (Moscow State University im. M. V.  
Lomonosov)

SUBMITTED: June 19, 1962  
Card 1/1

BELOTELOV, V.L.; RYKUNOV, L.N.

Digital computer for seismograms. Izv. AN SSSR. Ser. geofiz.  
no.3:473-475 Mr '63. (MIRA 16:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Seismometers)

RYKUNOV, V.; KRINITSKIY, B.

Magic stone. Vokrug sveta no.7:2-6 Jl '53. (MLRA 6:7)  
(Estonia - Oil shales) (Oil shales - Estonia)

RYKUNOV, Ye.I.

Amount and correlation of adrenergic substances in the blood  
of healthy nonpregnant and pregnant women, and also in subjects  
with hyperemesis gravidarum. Akush.i gin. no.6819-23 '60.  
(MIRA 14:1)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. A.A.  
Lebedev) Pediatriceskogo fakul'teta II Moskovskogo meditsin-  
skogo instituta imeni N.I. Pirogova.  
(ADRENALINE) (PREGNANCY) (VOMITING)

RYKUNOVA, S.D.

Comparative morphology of the internal branch of the superior laryngeal nerve. Uch. zap. Volg. gos. ped. inst. no.16:164-173 '64. (MIRA 19:1)

1. Kafedra fiziologii i morfologii Volgogradskogo gosudarstvennogo pedagogicheskogo instituta.

USSR / General Biology. Genetics. Plant Genetics.  
Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14437

B

Author : Rykunova, V. N.  
Inst : All-Union Scientific Research Institute of  
Oil and Ethereal Oil Cultures  
Title : Methods of Developing Intergeneric Mustard  
Hybrids

Orig Pub : V. sb.: Kratkiy otchet o nauchno-issled. ra-  
bote Vses. n.-i. in-ta maslich. i yefiro-  
maslich. kultur za 1956 g. Krasnodar, "Sov.  
Kuban'", 1957, 49-54

Abstract : The hybridization of various mustard varie-  
ties was carried out in 92 combinations. In  
1955, 13,985 blossoms were pollinated and  
51,290 seeds were obtained, and in 1956,

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/ General Biology. Genetics. Plant Genetics.  
Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14437

B

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2,600 blossoms were pollinated and 13,600  
seeds were obtained. The percentage of fruit  
setting fluctuated from 0 to 95.2. In addi-  
tion to external conditions, the hereditary  
traits of a variety greatly influence their  
hybridization and the productivity of hy-  
brids. The author arrives at the conclusion  
that if pollination is performed with a mix-  
ture of pollens, the quality of the pollen  
varieties in the mixture is mainly respon-  
sible for the successful pollination and that  
parent plants should be developed under con-  
ditions which are favorable to the variety  
of the pollinizer, and also that pollination

Card 2/3

LEBEDEV, A.A., prof.; RYKUNOV, Ye.I.; SINITSYNA, M.A.; PRIBYLOV,  
K.N.; BYLIONOK, V.K.; PAVLOVA, I.I.; GOTOVTSEV, P.I., red.;  
YAKOVLEVA, N.A., tekhn. red.

[Exercise therapy in obstetrics and gynecology] Lechebnaia fiz-  
kul'tura v akusherstve i ginekologii; posobie dlja vrachei  
zhenskikh konsul'tatsii i rodil'nykh domov. Moskva, Medgiz,  
1962. 173 p. (MIRA 15:12)

(EXERCISE THERAPY)  
(OBSTETRICS) (GYNECOLOGY)

RYKUNOVA, Ye.N.

On one team. Sov.profsoyuz 5 no.10:47-50 0 157. (MLRA 10:9)

1. Predsedatel' komiteta profsoyusa Ivanovskoy pryadil'no-otdelchnoy fabriki "Krasnaya Talka." (Women)

LEBEDEV, Anatoliy Alekseyevich, prof.; KOZHANOVA, Lidiya Savel'yevna;  
RYKUNOV, Yerminingel'd Ivanovich; SINITSYNA, Mariya Andreyevna;  
CHEKANOVA, V.I., red.; VORONINA, R.K., tekhn. red.

[Physiological bases for the prevention of complications in  
antenatal fetal development; a manual on the overall prepara-  
tion of pregnant women for labor] Fiziologicheskie osnovy pro-  
filaktiki oslozhrenii antenatal'nogo razvitiia ploda; posobie  
po kompleksnoi podgotovke beremennykh k rodam. Moskva, Vysshiaia  
shkola, 1962. 81 p. (MIRA 15:7)

(PRENATAL CARE)

RYKUSHIN, Yu.

"Epidemiological Characteristics and Epidemiological Significance of Adult Patients With Chronic Dysentery." Cand Med Sci, Leningrad Sanitary-Hygiene Medical Inst, Leningrad, 1953. (FZhBiol, No 7, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

DYGALO, L.; MALYSHEVA, A.M.; RYKUSHIN, Yu.P.; SHARONOV, V.A.

Epidemiological characteristics of an influenza outbreak in  
student dormitories in 1949 and 1956. Trudy LSGMI 32:222-  
232 '57. (MIRA 12:8)

1. Kafedra epidemiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav.kafedroy - prof.V.A.Bashenin).  
(INFLUENZE, epidemiol.)

A & B,  
in Russia, in student dormitories (Rus))

RYKLIS, S.G.

3

U S S R .

✓ Some derivatives of 2-benzothiazolylhydrazine. R. P.  
Vel'man and S. G. Ryklis. *Otdel. Khim. Znach.* 19, 319.

21(1953); *Referat. Zhur., Khim.*, 1954, No. 14521. — 2-Benzothiazolylhydrazone of furfural and of cinnamaldehyde and 2-benzothiazolylhydrazide of isonicotinic acids were synthesized for the purpose of studying their chemotherapeutic properties (possible antitubercular activity). Furfural (0.01 mole) and 0.012 mole of 2-benzothiazolylhydrazine (I), m. 198°, were boiled for 30 min. in 8 ml. H<sub>2</sub>O and 1.5 ml. 50% AcOH to give 87% of the 2-benzothiazolylhydrazone of furfural, m. 107-8° (from C<sub>6</sub>H<sub>6</sub> or dil. alc.). Similarly, 0.014 mole cinnamaldehyde and 0.01 mole I gave after 1 hr. boiling 2-benzothiazolylhydrazone cinnamaldehyde, m. 220-2° (from C<sub>6</sub>H<sub>6</sub> or AcOH). 2-Benzothiazolylhydrazide of isonicotinic acid, m. 210-11° (from u.c.), 310-12° (from H<sub>2</sub>O), was obtained by 2 hrs. heating at 100° equimolar quantities of isonicotinoylhydrazide and K 2-benzothiazolylsulfonate in H<sub>2</sub>O; 70% yield. This compd. could not be obtained by the interaction of 2-benzothiazolylhydrazine with isonicotinic acid ester. M. Haseli.

RYLE, M.

USSR/Physics - Radio Astronomy

Apr 52

"Radio Astronomy," M. Ryle

"Uspek Fiz Nauk" Vol XLVI, No 4, pp 508-588

Translation into Russian of an English-language article that appeared in "Reports on Progress in Phys" Vol 13, pp 184-246, 1950. The reader is asked to compare the following Soviet articles on problems of radio emanation from the Sun and Galaxy in "Uspek Fiz Nauk": V. L. Ginzburg, 32, 26-53, 1947, and 34, 13-33, 1948; G. G. Getmantsev, 41, 408, 1950, and 44, 527-557, 1951.

218T101

RYLEK, M.; VONDRAK, J.

Extraction equilibrium of cadmium iodide in the CdI<sub>2</sub>-H<sub>2</sub>O-(C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>O system. Coll Cz chem 25 no.10:2497-2502 0 '60.  
(EEAI 10:9)

1. Jetzige Adresse: Institute fur theoretische Grundlagen der chemischen Technik, Tschechoslowakische Akademie der Wissenschaften, Prag (for Rylek). 2. Jetzige Adresse: Institut fur anorganische Chemie, Tschechoslowakische Akademie der Wissenschaften, Prag. (for Vondrak)

(Extraction(Chemistry)) (Cadmium iodide) (Ethyl ether)  
(Water) (Phase rule and equilibrium)

RYLESHNIKOVA, M.M.; GUSEV, V.M.; FRIDMAN, M.L.; PUNGA, V.E.

Portable machine for shabot repair. Mashinostroitel' no.2:22  
(MIRA 15:2)  
F '62.  
(Milling machines)

MIKHAYLOV, V.G., prof., doktor tekhn.nauk; SIMILEYSKIY, M.G., dots.,  
kand.tekhn.nauk; RYLEV, E.V., starshiy prepodavatel', kand.  
tekhn.nauk; SHAMSHIN, V.N., assistent

"Investigation and selection of boring machine cutter bits.  
Trudy NPI 80 :3-121 \*59. (MIRA 13:12)  
(Boring machinery)

RYLEV, E. V. Cand Tech Sci -- (diss) "Study of the Performance  
of Rock Cutters." Novocherkassk, 1957. 18 pp with diagrams, 20c<sup>m</sup>.  
(Min of Higher Education USSR, Novocherkassk Polytechnic Inst  
im Sergo Ordzhonikidze, Chair of Mining Machinery and Ore Transport),  
125 copies (KL, 27-57, 107)

SOKOLOV, V.A.; GALDORINA, L.P.; RELEYEV, A.V.; SATSUK, Yu.I.; SVETOV, A.P.;  
KRETSKAREN, Z.I.

New volcanic complex in the Proterozoic of Karelia. Dokl. AN SSSR  
161 no.3:676-678 Mr '65. (MIRA 18:4)

1. Submitted November 19, 1964.

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CIA-RDP86-00513R001446420012-7

RYLEYEV, G. S.; KRYUGER, P. K.; KAZAKOV, V. N.; VIL'KEVICH, B. I.

"Ekspliyatatsiya Teplovozov i Teplovoznoe Khozyaistvo" (Exploitation of Diesel Locomotives and Engine Economy), 295 p., State Railway Transportation Publ., Moscow 1951.

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MIKHEYEV, A.P., prof., doktor tekhn.nauk; SHUKSTAL', Ya.V., kand.ekon.  
nauk; DMITRIYEV, V.A., kand.ekon.nauk. Prinimali uchastiye:  
GUTKIN, L.V., kand.tekhn.nauk; SHVARTS, R.Ia., mladshiy nauchnyy  
sotrudnik; VASILEVSKIY, L.I., nauchnyy sotrudnik. GORINOV,  
A.V., retsenzent; MIKHAI'L'SEV, Ye.V., prof., retsenzent; GIBSH-  
MAN, A.Ye., prof., retsenzent; RYLEYEV, G.S., inzh., retsenzent;  
KHACHATUROV, T.S., red.; MAKSIMOV, I.S., red.; GERASIMOVA, Ye.S.,  
tekhn.red.

[Effectiveness of electric and diesel traction in railroad  
transportation] Effektivnosti elektricheskoi i teplovoznoi  
tiagi na zhelezodorozhnom transporte. Moskva, Gosplanizdat,  
1960. 302 p. (MIRA 13:4)

1. Chleny-korrespondenty AN SSSR (for Gorinov, Khachaturov).  
(Diesel locomotives) (Electric locomotives)

12(3)

PHASE I BOOK EXPLOITATION SOV/1743

Ryleyev, Gennadiy Sergeyevich, Engineer

Pamyatka teplovoznoy brigade (Handbook for Diesel-Electric Locomotive Crews) 3d ed., enl. Moscow, Transzheldorizdat, 1958. 74 p. (Series: Rabota zheleznykh dorog v zimnikh usloviyakh) 16,000 copies printed.

Ed.: G.S. Shcherbachovich, Engineer; Tech. Ed.: P.A. Khitrov.

PURPOSE: This book is intended for Diesel locomotive drivers, firemen, helpers, and for workers engaged in servicing of locomotives in winter.

COVERAGE: The trouble-free operation of Diesel locomotives in winter is said to require careful maintenance and winterization of the equipment. The book contains detailed instructions for the protection of the locomotive against the effects of frost, snow, and moisture. The apertures, air ducts, and vents which have to be closed or protected and the fuel pipes and

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## Handbook for Diesel-Electric (Cont.)

SOV/1743

conduits which need special servicing are listed and illustrated. The arrangements for preheating of fuel and lubricants are described. The text also contains instructions for driving locomotives in snow and adverse climatic conditions. No personalities are mentioned. There are no references.

## TABLE OF CONTENTS:

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2. Winter Equipment of Diesel Locomotives	6
3. Winterizing of Diesel Locomotives	8
4. Winterizing of Coarse Wire-mesh Fuel Filters in Diesel Locomotives	10
5. Winterizing of Pipe Lines	10
Card 2/5	

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AVAILABLE: Library of Congress (TJ 619.R9)

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5-28-59

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B.Ye., redaktor; DROBINSKIY, V.A., redaktor; VERINA, G.P.,  
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Regulate the norms for fuel oil consumption. Elek. i tepl.  
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(Diesel locomotives)

RYLEYEV, V.I.

Maximal gradients of the filtration flow in cores of rock-earth  
dams. Trudy VODGEO no. 11:43-45 '65 (MIRA 19:1)

NICHIPOROVICH, A.A., doktor tekhn.nauk, prof.; RYLEYEV, V.I., inzh.

Results of field observations of seepage at the base of a  
number of hydraulic structures. Gidr.stroi. 28 no.1:20-26  
Ja '59. (MIRA 12:2)

(Soil percolation) (Hydraulic engineering)

SOV/98-59-1-4/14

AUTHOR: Nichiporovich, A.A., Doctor of Technical Sciences,  
Professor, and Ryleyev, V.I., Engineer

TITLE: The Results of Actual Observations of Filtration in the  
Foundation of a Row of Water-Buttressing Structures  
(Resul'taty naturnykh nablyudeniy za fil'tratsiyey v  
osnovanii ryada vodopodpornykh sooruzheniy)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 1, pp 20-26  
(USSR)

ABSTRACT: The authors compare the results of actual observations  
of filtration in the foundations of eight water-butress-  
ing structures with the results of theoretical and  
experimental research previously done on models of these  
structures. As all natural conditions could not be  
taken into consideration when tests on models were made,  
theoretical data often considerably differed from data  
obtained by actual observations. According to the

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SOV/98-59-1-4/14

The Results of Actual Observation of Filtration in the Foundation of a Row of Water-Buttressing Structures

geological conditions, these eight structures were divided into three groups, and results of actual observations were given for each group and compared with the theoretically-obtained data. Engineers V.V. Burenkov and N.V. Yudin collaborated in the preparation and the analysis of the data described in detail in this article. There are eight profiles and one table.

Card 2/2

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001446420012-7

RYLICH, A.

J. HEVROWSKY, Coll. Czech. Chem. Commun. 7, 228-93, 1935

APPROVED FOR RELEASE: 06/20/2000

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J. JIRAKOVSKY, Coll Czech Chem. Comm, 1965, 7, 281-287, 288-298

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ACC NR: AR6028514

(N)

SOURCE CODE: UR/0398/66/000/005/V010/V010

AUTHOR: Rylin, N. G.

TITLE: Hydrofoil operating experience

SOURCE: Ref. zh. Vodnyy transport, Abs. 5V45

REF SOURCE: Proizv.-tekhn. sb. Tekhn. upr. M-va rechn. flota RSFSR, no. 4 (48), 1965, 13-15

TOPIC TAGS: hydrofoil, marine engine, diesel engine, marine equipment, transportation equipment, engine auxiliary equipment, engine reliability, transportation system, component life expectancy

ABSTRACT: Hydrofoils have been in operation on the Dnepr River for five seasons. The average daily run of each hydrofoil in 1964 was 587 km. The cost of carrying passengers in hydrofoil type motorships in 1963 was 26.5% below the transportation costs for the steamship line's passenger fleet as a whole. The guaranteed life of the M-50 engine has been extended considerably; in 1964 engines were run for 1749 hours, instead of the guaranteed 500 hours, before they were replaced. It can be noted that the most frequent breakdowns occurred in the cooling water circulating pumps. In order to avoid these failures the pumps were taken down every 100-130 hours of engine operation, the impeller securing bolts were drawn up, and after one

Card 1/2

UDC: 629.124.9.040.004

ACC NR: AR6028514

inspection the distance piece was replaced with a new one. These measures made it possible to operate the pump without replacement for 1600 hours. The engine heating system, and the system used to pump lube oil from the lube oil tank, the crankcase, and the clutch, have been improved. A dual water supply to the cooling system, and the addition of 1% by weight of potassium bichromate to the system, has sharply reduced the corrosion of sleeves and cylinder jackets. Noted is the fact that it is possible to effect a further increase in the average daily runs and increase the operating capacities of the ships by doing away with unplanned repairs to the ships. It is recommended that the engine be inspected after every 500 hours of operation, that glands be inspected every 300 hours, and taken down and replaced after 600 hours, and that the blocks be dismantled and the piston groups inspected after 900-1000 hours. Use of the M-400 engine will improve operating indices for the ships. The Dnepr Steamship Line held a seminar in 1965, during which progressive experience and repairs in the Raketa and Meteor types of ships were generalized. 1 table. Ye. Chestnov. [Translation of abstract]

SUB CODE: 13

Card 2/2

RYLIN, S.S.; POKROVSKAYA, N.V.

Role of acetic acid in biosynthetic processes taking place in brewers' yeast. Mikrobiologiya 28 no.4:586-593 Jl-Ag '59. (MIRA 12:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pivovarennoy promyshlennosti, Moskva.  
(ACETIC ACID) (YEAST)

SERENKO, I.A.; RYLIN, V.A.; KUPRIYANOV, A.M.

Lowering casing strings to a predetermined depth under complex geological conditions. Burenje no.4:13-15 '65. (MIRA 18:5)

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"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R001446420012-7

KYLKF, Aleksander, prof. dr inz.

Aleksiej Nikolaevich Krylev, 1963-1945. Bud. okretowe Warszawa  
9 no.3:73-74 Mr '64.

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CIA-RDP86-00513R001446420012-7"

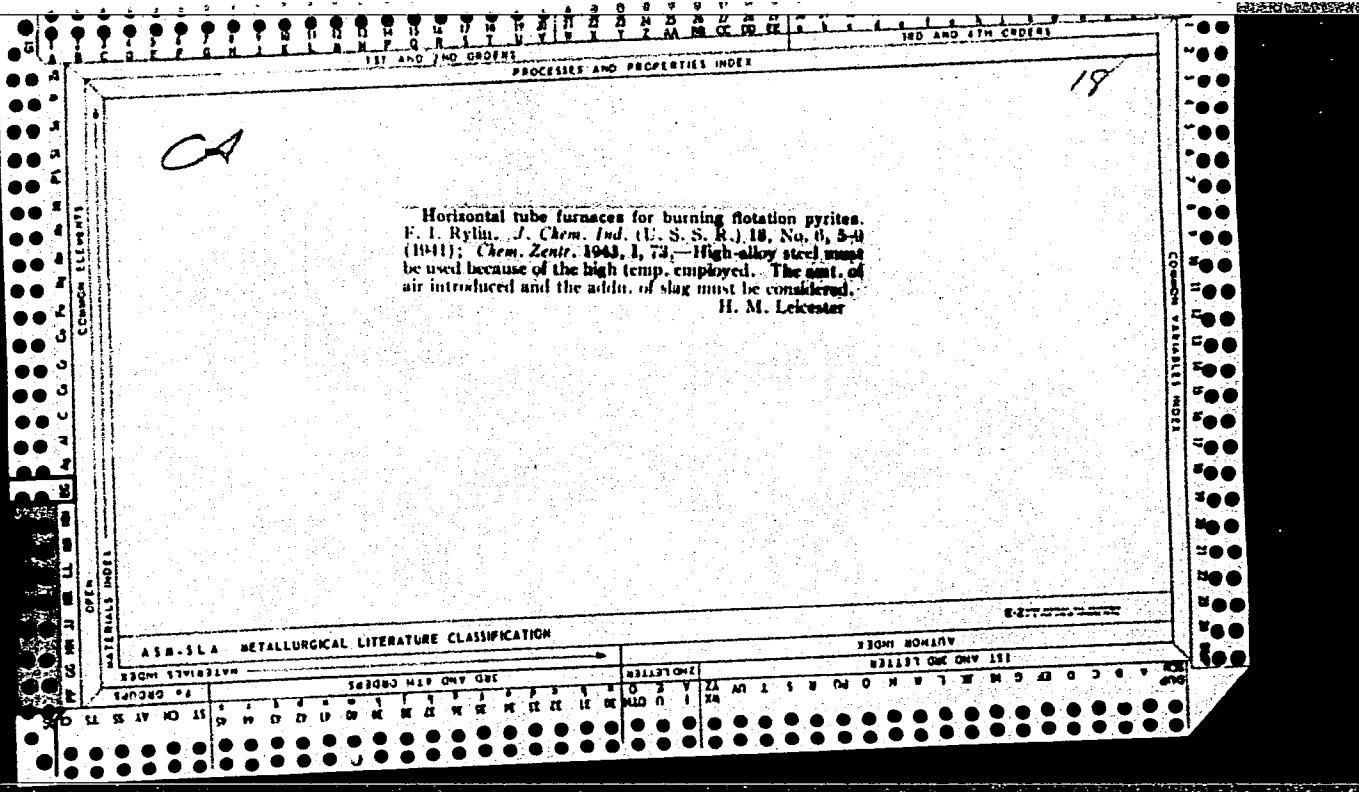
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Improve credit and payment methods. Den. i kred. 13 no. 9:39-41 S'55.  
(Banks and banking) (MIRA 8:12)

RYL'KOVA, T.

New method for the clarification of glue-liquor. Mias. ind. SSSR  
30 no.5:27-28 '59. (MIRA 13:1)

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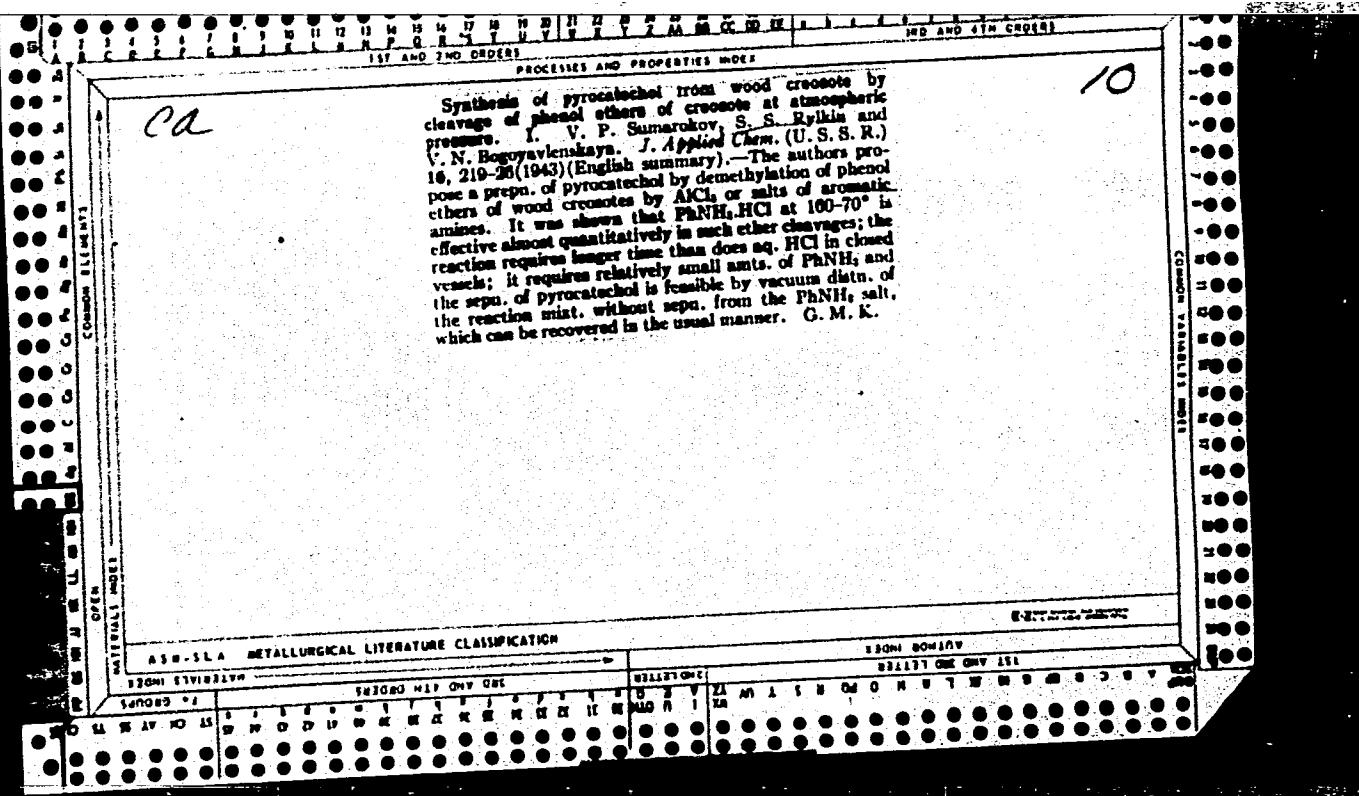


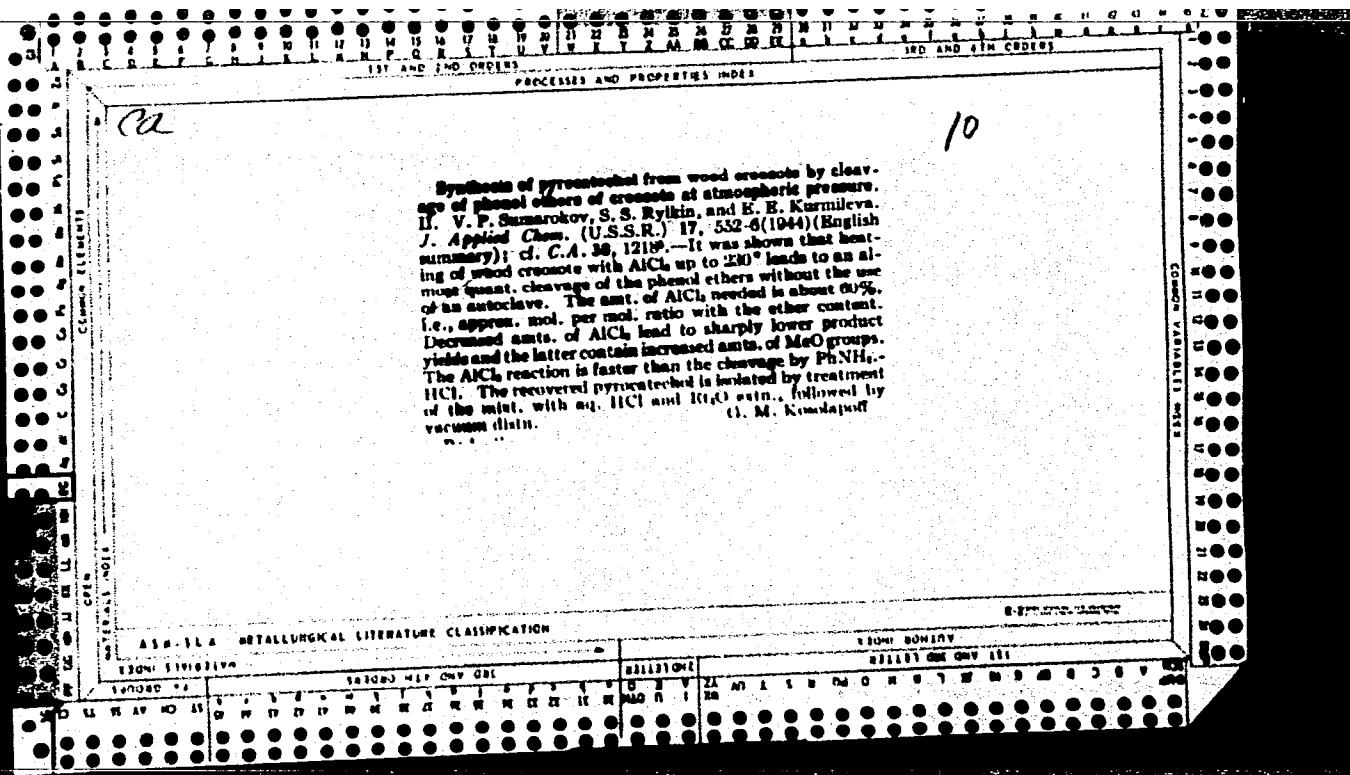
RYLKE, A.

Josef Woznicki; an obituary.

P. 273. (ARCHIWUM HYDROTECHNIKI) (Warszawa, Poland) Vol. 4, no. 3, 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958





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than in coconut-oil soaps. Frank Conet

RYKIN, A.I.

Total atelectasis of the lung following tonsillectomy. Vest. Gorin.  
25 no.5:95-96 S-O '63. (MIRA 17 4)

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(zav. - zasluzhennyj vrach RSFSR A.F.Temperamentov), Gor'kiy.

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Case history of a giant cholesteatoma of the ear. Zhur.ush., nos.  
i gorl.bol. 22 no.4:82-83 SI-Ag '62. (MIRA 16:2)

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Simolin) Gor'kovskogo meditsinskogo instituta imeni S.M. Kirova.  
(EAR--TUMORS)

DENSHCHIKOV, M.T.; RYLINK, S.S.; ZHVIRBLYANSKAYA, A.Yu.; MOISEYEVA, V.P.;  
BERENTSVEYG, I.A.; BOBIKOV, Ye.V.

Role of diacetyl on the vitality of sedimentary brewers' yeasts.  
Trudy TSentr.nauch.-issl.inst.piv., bezalk.i vin.prom.no.11:16-27 '63.  
(MIRA 17:9)

RYL'KIN, S.S.

Role of lactic acid in the biosynthesis of substances constituting a yeast cell. Trudy VNIIPP no.7:90-97 '59.

(MIRA 13:5)

(Yeast) (Lactic acid)

DENSHCHIKOV, M.T.; RYLINK, S.S.; ZHVIRBLYANSKAYA, A.Yu.

Conditions of the formation of diacetyl, acetojn and 2,3 butylene glycol during fermentation. Trudy TSentr.nauch.-issl.inst.piv., bezalk. i vin.prom. no.9:5-12 '62.

Use of the iodometric method for determining aldehydes. 12-14

Some observations concerning the formation of aldehydes under the conditions of continuous fermentation. 14-18

The likeliest sources of the formation of fusel oils under the conditions of alcohol fermentation. 18-22

Some characteristics of yeast cell multiplication under the conditions of continuous fermentation. 22-32

Studying the flocculation capacity of yeast under the conditions of continuous fermentation. 32-39 (MIRA 16:10)